

## remember

- An idling diesel engine cools down faster than a stopped engine.
- Three minutes idling of diesel engines is necessary to prevent valve and turbo-charger problems, but only after full load operations.
- Some operators can save over \$800 per year by reducing their idling time.
- Too much idling may lead to premature wear and sludge formation in gasoline engines and to injector problems in diesel engines.
- Gasoline engines use significantly more fuel than diesel engines at idle.
- Cut out unnecessary idling. Shut your engine down while you have coffee or lunch.
- Properly performed tune-ups save fuel. Pay particular attention to the idle speed adjustment.



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Trucksave, a voluntary industry and  
government group concerned with  
conservation of fuel in Ontario.

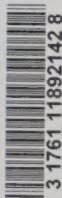
idling  
costs  
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Trucksave  
ONCE INTO A LUXURY VEHICLE



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### stretch your fuel dollars

Fuel costs money – three times more today than five years ago – and further increases are looming in the future. That's why we know you'll be interested in finding ways to make that load of fuel take you further down the road.

One easy way to stretch your fuel dollar is to reduce your idling time. Idling wastes fuel and your money. The average diesel at idle uses 2.5 L/h and a gasoline engine consumes 3.5 L/h. Idling engines get 0 km/L, so even a 20% reduction in wasteful idle time can save you money.

Pick-up and delivery trucks burn 20%-40% of their total fuel by idling. Often this represents unnecessary idling during deliveries and coffee breaks.

Line-haul trucks waste fuel by prolonged morning warm-ups or idling at truck stops, both of which can easily be eliminated.

### idling can cause damage

Idling a diesel engine for more than 3 minutes may clog the injectors so that your engine will be less powerful and less efficient when driving.

Excessive idling of gasoline engines often results in overheating, oil sludge formation and premature bearing wear.

### should you idle in cold weather to keep the engine warm during lunch?

**no!** In fact, your **stopped** diesel engine will be warmer than one that is left **idling!**

Often a diesel engine is left idling over the lunch hour to "keep it warm". In fact, an idling engine will cool off faster than one that is shut off. The heat is pulled from an idling diesel engine by the continued operation of the cooling system and by a high flow of intake air through the engine. Since this system stops operating when an engine is turned off, a shut-down engine retains more heat than one left idling.

After one-half hour, a stopped engine is **warmer** than one left idling. After one hour, the temperature of a stopped engine is about **equal** to that of an idling engine (see graph).

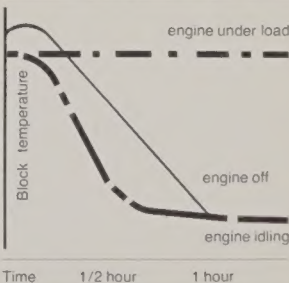
## average annual idling costs per truck

Type of service	Idle time per day	Gasoline (35¢ L)		Diesel (30¢ L)	
Over the road	1 hour	1075 L	\$360	570 L	\$171
City	2.5 hours	2560 L	\$896	1425 L	\$428

## reduce your idle time and save!

20% Reduction	Gasoline engine	Diesel engine
Fuel savings	250 – 514 L	114 – 187 L
\$ savings	\$88 – \$180	\$35 – \$86

## diesel cooldown at –7°C



Note. Even in winter, the temperature of a stopped engine is equal to that of an idling engine after one hour.

### equipment to reduce idling

There are several devices on the market which will make it easier for you to reduce your idle time without sacrificing comfort.

**The automatic shut-off device** allows the truck to idle for a predetermined time.

**Engine heaters** minimize engine start-up wear, help the cab warm up quickly, and reduce idling in extremely cold situations.

**Cab heaters** allow the driver to sleep in a warm cab without idling the engine.

**The automatic idler** shuts off your idling engine after 3 minutes allowing you to remove your keys, lock the cab, and leave the engine idling.

Contact Trucksave for more information.

### manufacturers say:

"**Excessive idling gums engine,**"  
Lyle E. Adams, Detroit Diesel.

"**Idling fouls injector nozzles,**"  
Claude Keast, Mack.

"**Shut the engine down during lunch,**"  
Don Wagner, Caterpillar.

"**Excessive idling causes oil dilution and overcooling,**"  
Bob Magloughlen, Cummins.

### occasionally idling is necessary

Usually, lightly loaded engines in city service require no cool down time. Turbo-charger failures and valve problems can result if a hard-working engine is simply turned off. Manufacturers recommend 3 minutes of idling for a diesel engine that has been working hard – but don't overdo it!